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xenogenic administration is excluded.

The method of treatment of claim 22 wherein the administering comprises 23. injecting, transplanting/or grafting.

The method of treatment of claim 23 wherein the injecting, transplanting, or 24. grafting is an autologous injecting, transplanting, or grafting.

The method of treatment of claim 22 wherein the subject further comprises a liver or a spleen and the administering comprises injecting, transplanting, or grafting the genetically engineered hepatocyte precursor to the liver or the spleen of the subject.

The method of treatment of claim 22 wherein the genetically engineered 26. hepatocyte precursor is obtained by genetic modification of an isolated hepatocyte precursor.

The method of treatment of claim 26 wherein the genetic modification comprises transducing a hepatocyte precursor with a vector comprising a genetic material or a selectable marker

The method of treatment of plaim 26 wherein the isolated hepatocyte precursor is 28. capable of differentiating into a hepatocyte.

The method of claim 22 wherein the genetically engineered hepatocyte precursor expresses at least one gene of interest.

- 30. The method of claim 29 wherein the gene of interest comprises a normal liver gene, a gene not expressed in mature normal liver cells, a gene with increased level of expression, or a combination thereof.
  - 31. The method of claim 29 wherein the gene of interest is incorporated into the

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genomic DNA of the subject.

- 32. The method of claim 29 wherein the gene of interest is incorporated into the subject extrachromosomally.
- 33. The method of claim 29 wherein the gene of interest comprises deoxyribonucleic acid or ribonucleic acid.
- 34. The method of treatment of claim 29 wherein the gene of interest can be used to treat a viral hepatitis, correct a low density lipoprotein receptor, correct a deficiency of ornithine transcarbamylase, treat hemophilia, treat an alpha-1 anti-trypsin deficiency, treat phenylketonuria, or treat another defect in a metabolic pathway.
- 35. The method of treatment of claim 29 wherein the gene of interest codes for a protein or polypeptide.
- 36. The method of treatment of claim 35 wherein the protein or polypeptide is useful in prevention or therapy of an acquired or an inherited defect in liver function.
- The method of treatment of claim 21 wherein the genetically engineered hepatocyte precursor is obtained by ex vivo genetic modification of a hepatocyte precursor.
- 38. The method of treatment of claim 21 wherein the genetically modified hepatocyte precursor is obtained by in vivo genetic modification of the hepatocyte precursors.
  - 39. The method of treatment of claim 21 wherein the subject is human.
- 40. A drug delivery system comprising genetically engineered hepatocyte precursors wherein the genetically engineered hepatocyte precursors express a therapeutic polypeptide or protein in a biologically significant amount. --